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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/643,451 | 08/19/2003 | Eric O. Zuber | 02CR360/KE | 4397 |
| 26383 7590 05/04/2009 ROCKWELL COLLINS, INC. INTELLECTUAL PROPERTY DEPARTMENT 400 COLLINS ROAD NE M/S 124-323 CEDAR RAPIDS, IA 52498 | | | | |
| EXAMINER | | | | |
| GEE, JASON KAI YIN | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2434 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/643,451

Applicant(s)

ZUBER ET AL.

Examiner

JASON K. GEE

Art Unit

2434

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02/19/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is response to communication: amendment filed on 02/17/2009.
2. Claims 1-6 and 17-24 are currently pending in this application. Claims 1, 17, and 21 are independent claims. Claims 21-24 are new.
3. No New IDS was received for this application

Response to Arguments

4. Applicant's arguments filed 02/17/2009 have been fully considered and are moot in view of new ground(s) of rejections.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 21-24, independent claim 21 recites "reincapsulating" the encrypted outbound packet. It is unclear if the packets are encapsulated in the first place, and what form of encapsulation is taking place. For purposes of examination, it will be assumed that the packets are encapsulated when they are sent out.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 17, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable Thedens et al. US Patent No. 6,041,035 (hereinafter Thedens) in view of Sherman et al. US Patent No. 5,075,884 (hereinafter Sherman).

As per claim 1, Thedens teaches a multi-channel radio operating with multiple security levels, comprising: more than one input, each input corresponding to a security level (Figure 1, with security levels of red/black); a first set of more than one processors, each of the processors in the first set of more than one processors is coupled to one of the inputs (Figure 1; also col. 5 lines 60-67, wherein there are multiple black and red processing modules, wherein processors are 262 and 282; each of the processors in the first set of more than one processors corresponding to the security level of the respective input (Figure 1; also col. 4 lines 25-38) ; a second set of processors coupled to the first set of more than one processors via a first common bus (Figure 1, wherein second processor is processor 302); wherein one of the processors of the first set of more than one processors encodes information received from the input to provide encoded information (col. 4 lines 25-38); wherein the encoded information is configured to be able to be decoded by devices corresponding to the security level of the one of the

processors of the first set of more than one processors (col. 4 lines 25-38); wherein the first common bus is configured to direct the encoded information to an intended processor of the second set of more than one processor, the intended processor corresponding to the security level (col. 5 line 60 to col. 6 line 14).

However, at the time of the invention, Thedens does not explicitly teach a second set of more than one processors. Thedens teaches at least one processor though, as mentioned above, such as processor 302. Having additional processors is well known in the art though, such as taught by Sherman. Sherman teaches wherein systems implement multiple processors to implement multi-level security (col. 4 line 60 to col. 5 line 3). Sherman further teaches wherein the encoded information is not decodable by another processor of the second set of more than one processors corresponding to a different security level (col. 4 line 60 to col. 5 line 3, wherein each processor is dedicated to a specific security level).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include the teachings of Sherman with Thedens. Having multiple processors for multiple security levels is well known in the art, as Sherman throughout this application. As seen, each processor is dedicated to processing information at a different level, and thus, it would make the system more secure as each processor can only perform the security level it is assigned.

As per claim 2, Thedens teaches wherein the first set of more than one processors are red processing devices (Figure 1).

As per claim 3, Thedens teaches wherein the second set of more than one processors are black processing devices (Figure 1)

As per claim 4, Thedens teaches wherein the first set of more than one processors are red processing devices (Figure 1)

Claim 17 is rejected using the same basis of arguments used to reject claim 1 above.

Claim 18 is rejected using the same basis of arguments used to reject claim 2 above.

Claim 20 is rejected using the same basis of arguments used to reject claim 3 above.

9. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thedens and Sherman as applied above, and further in view of Fletcher US SIR Reg. No. H1,836 (hereinafter Fletcher).

As per claim 5, the Thedens teaches switching devices, but does not explicitly teach wherein the first common bus is an Ethernet packet switching device. However, using Ethernet devices are well known in the art, as pertaining to multi-channel communication radios, and are taught throughout Fletcher, such as in col. 16 lines 20-30.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the Thedens and Sherman combination with Fletcher. Fletcher

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teaches that a switching modules may include many components, such as busses and Ethernet interfaces. As Ethernet is well known in the art and used commonly to those in the field, it would have been obvious to make a switch compatible for Ethernet packets. Providing an Ethernet switch would make the invention more practical and adaptable to use as Ethernet is well known and used frequently.

10. Claims 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thedens and Sherman as applied above, and further in view of Mahany US Patent No. 5,960,344 (hereinafter Mahany).

As per claim 6, the Thedens combination teaches the use of a bus, but does not explicitly recite PCI busses. However, PCI busses are well known in the art, and may be implemented in multi-channel radios, such as taught by Mahany in col. 9 lines 10-21.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the Thedens combination with Mahany. PCI busses are well known in the art and used commonly, and it would have been obvious to incorporate PCI busses to make the systems compatible with the systems on the market.

Claim 19 is rejected using the same basis of arguments used to reject claim 6 above.

11. Claims 21, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thedens and Sherman as applied above, and further in view of Walker et al. US Patent Application Publication 2002/0163920 (hereinafter Walker).

Claim 21 is rejected using the same basis of arguments used to reject claim 1 above. However, Thedens and Sherman do not explicitly teach encoding data, a data source, and a destination address to generate an encrypted outbound packet which is encapsulated. This is taught throughout Walker though, such as in paragraphs 4-6 and throughout the reference.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include the teachings of Walker to teach encapsulation. One of ordinary skill in the art would have been motivated to perform such an addition to create more security, as it prevents unauthorized access to a network located at an endpoint of the tunnel (paragraph 6 and 7).

Claim 22 is rejected using the same basis of arguments used to reject claim 2 above.

Claim 24 is rejected using the same basis of arguments used to reject claim 3 above.

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thedens, Sherman, and Walker as applied above, and further in view of Mahany US Patent No. 5,960,344 (hereinafter Mahany).

As per claim 23, the Thedens as modified by Sherman and Walker teaches the use of a bus, but does not explicitly recite PCI busses. However, PCI busses are well known in the art, and may be implemented in multi-channel radios, such as taught by Mahany in col. 9 lines 10-21.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of the Thedens combination with Mahany. PCI busses are well known in the art and used commonly, and it would have been obvious to incorporate PCI busses to make the systems compatible with the systems on the market.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. GEE whose telephone number is (571)272-6431. The examiner can normally be reached on M-F, 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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03/24/2009
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